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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,504	01/25/2001	Robert A. Priegnitz	P00,1841	5322

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EXAMINER

LAXTON, GARY L

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 05/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,504

Applicant(s)

PRIEGNITZ ET AL.

Examiner

Gary L. Laxton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 4/12/02 have been fully considered but they are not persuasive.

Applicant presents spurious arguments with regard to both cited prior art references. The applicant does not specifically point out how the claim language differentiates from the references cited. Furthermore, applicant argues that the Bowman reference requires a separate drive winding; however, the claims do not exclude such limitations. Furthermore, with regards to Farrington et al; the applicant states that the Farrington et al reference does not show a fixed voltage source connected to the control leads of the switches. Examiner traverses this spurious argument; Figures 3-5 and 7-13 all illustrate a fixed voltage source connected to the control leads of the transistors. Therefore, the rejections stand.

2. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

3. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

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4. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

5. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Bowman is used as a teaching reference merely to illustrate that it is common knowledge generally available to one of ordinary skill in the art to filter the output with components such as those used by Bowman which the Farrington et al reference lacked.

Drawings

6. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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The Applicant has described figure 1 under the heading "Description of the Prior Art" beginning on page 1. This leads the Examiner to believe that Applicant, in describing figure 1 under the heading "Description of Prior Art", is describing Prior Art. The Applicant then further states in the specification, line 3 page 2, that "one type" of DC converter is "known as a synchronous rectifier". "An Example of a synchronous rectifier is shown in Figure 1...", line 6 page 2. After this in the Applicant's specification, one of ordinary skill in the art would consider that the Applicant is describing what is already known in the art (e.g. "Prior Art").

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1 and 3-9 are rejected under 35 U.S.C. 102(a) as being anticipated by Bowman et al.

Bowman et al discloses, figure 1, a power converter having an input and output and a method of operating the power converter. The power converter includes a power transformer having primary

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and secondary windings and a power switch coupled to the input and configured to impress an input voltage across the primary winding. The power converter further includes a hybrid synchronous rectifier coupled to the secondary winding and including first and second synchronous rectifier switches. The power converter still further includes a separate drive winding wound on the power transformer and coupled between the first and second synchronous rectifier switches. The separate drive winding is configured to alternately energize the first and second synchronous rectifier switches. Furthermore, the Examiner points to figure 12 which illustrates a fixed voltage source (Vcc) connected to the control leads (Vcc - Gate) of the transistors (SQ7, SQ8).

9. Claims 1-6 and 9-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Farrington et al.

Farrington discloses a self-driven synchronous rectifier circuit (42) for a power converter. The circuit comprises a transformer (49, 70) having a secondary winding with a first and second terminal, a first synchronous rectifier (14) coupled to the second transformer terminal and having a control terminal, and a second synchronous rectifier (16) coupled to the first transformer terminal and having a control terminal. The circuit

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(42) also comprises a first switch (44) coupled to the first synchronous rectifier (14) control terminal, and a second switch (46) coupled to the second synchronous rectifier (16) control terminal. The first (44) and second switch (46) are also coupled to the secondary winding. Switching transitions of the first (14) and second (16) synchronous rectifiers are initiated by a polarity reversal of the voltage of the secondary transformer winding. Furthermore, the Examiner points to figures 3-5 and 7-13 all illustrating a fixed voltage source connected to the control leads of the transistors.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrington et al in combination with Bowman et al.

Claims 7 and 8:

Farrington discloses the claimed invention as stated above with respect to claim 1 except for the claimed filter components and connections.

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Bowman et al teach connecting inductors to the outputs for filtering furthermore, Bowman teach additional filtering with an added capacitor. Therefore, it would obvious to one having ordinary skill in the art at the time the invention was made to utilize plural inductors and an additional capacitor for filtering purposes in order to provide a highly desired smooth output voltage or output current.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

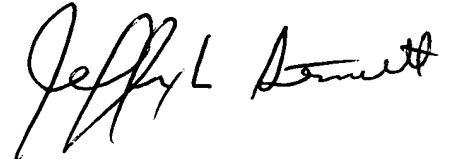
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (703) 305-7039. The examiner can normally be reached on 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703) 308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jeffrey Sterrett
Primary Examiner